

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
20 October 2005 (20.10.2005)

PCT

(10) International Publication Number
WO 2005/096976 A1

(51) International Patent Classification⁷:

A61B 17/72

(21) International Application Number:

PCT/IN2005/000103

(22) International Filing Date: 7 April 2005 (07.04.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
438/MUM/2004 12 April 2004 (12.04.2004) IN

(71) Applicant and

(72) Inventor: THAKKAR, Navin [IN/IN]; 2/A Agam Nigam Nav Nirman Co Op. Society, Anandvadi, Isanpur, Ahmedabad 382443 (IN).

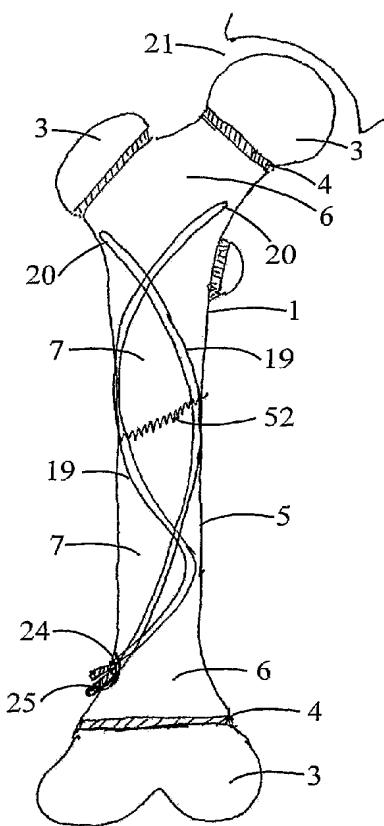
(74) Agent: TRIVEDI, Yagnesh; 'YAGNA JYOT', Opp. Kashiram Agrawal Hall, B/h. Jahanvee Restaurant, Polytechnic, Ahmedabad 380015 (IN).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: FLEXIBLE NAIL ASSEMBLY FOR FRACTURES OF LONG BONES



(57) Abstract: An implant assembly of flexible nails (19) for fractures of long bones comprises of a straight universal length flexible nails having properties of ductility as 15 % to 25 % of elongation of nail and ultimate tensile strength of 600 to 800 Mega Pascal on testing, having an identical pathfinder blunt conical tip (20) at both ends, an optional proximal fixation device (27) with optional plural holes for interlocking screws (28) to be used in combination with said flexible nails having peripheral equally spaced plural grooves deep less than diameter of one said flexible nail, a end cap with plural holes to be used in combination with said proximal fixation device to anchor cut hooked ends of said flexible nails and a tool plier - knurled cum cutter temporarily applied when said flexible nails are alone in use.

**Declarations under Rule 4.17:**

- *as to the identity of the inventor (Rule 4.17(i)) for all designations*
- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*
- *of inventorship (Rule 4.17(iv)) for US only*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *with international search report*